SSC-SD TADMUS PROGRAM BIBLIOGRAPHY

January 2000

- Barnett. B. J., Perrin, B. M., & Walrath, L. D. (1993). <u>Bias in Human Decision Making for Tactical Decision Making Under Stress</u>. (Task 1) St. Louis, MO: McDonnell Douglas Corporation.
- Barnett. B. J., Perrin, B. M., & Walrath, L. D. (1993). <u>Techniques to Reduce Bias in Human Decision Making for Tactical Decision Making Under Stress</u>. (Tasks 2 & 3) St. Louis, MO: McDonnell Douglas Corporation.
- <u>Decision-Making Evaluation Facility for Tactical Teams (DEFTT) Design Analysis Report.</u> (1992). Technical Report, Naval Underwater Systems Center, New London, CT.
- Frasier, B. D. (1992). <u>Position Descriptions and Responsibilities in an AEGIS Combat</u> Information Center.
- Hair, D. C., Pickslay, K., & Chow, S. (1991). Explanation-Based Decision Support in Real Time Simulations. <u>Proceedings of the Eighth IEEE Conference for Artificial Intelligence Applications</u>.
- Hair, D. C., Pickslay, K., (1992). <u>Development of Computer Support for Naturalistic Decision-Making</u>. Technical Report 1558, Naval Command, Control and Ocean Surveillance Center, RDT&E Division.
- Hair, D. C., Pickslay, K., (1992). Explanation-Based Reasoning in Decision Support Systems. <u>Proceedings of the 9th Annual Conference on Command and Control Decision Aids, Monterey, CA</u>
- Hair, D. C., Pickslay, K., & Chow, S. (1992). Explanation-Based Decision Support in Real-Time Situations. <u>Proceedings of the 4th International Conference on Tools with Artificial Intelligence</u>, pp. 22-25, Arlington, VA.
- Hair, D. C., Pickslay, K. (1992). Explanation-Based Reasoning in Decision Support Systems. <u>Proceedings of the 9th Annual Conference on Command and Control Decision Aids,</u> Monterey, CA.
- Hair, D. C., Pickslay, K. (1993). User Interface Issues in Real-Time Decision Support. <u>Proceedings of the 10th Annual Conference on Command and Control Decision Aids</u>. Washington, DC.

- Hair, D. C., Pickslay, K. (1993). Development of the Situation Assessment by Explanation-Based Reasoning Tool. <u>Proceedings of the 10th Annual Conference on Command and Control Decision Aids.</u> Washington, DC.
- Hair, D. C., Pickslay, K. (1993). Critiquing in Real Time Systems. <u>Proceedings of the AAAI Workshop on Expert Critiquing Systems</u>.
- Hair, D. C., Pickslay, K. (1993). <u>Building User Interfaces for Real-Time Decision Support Systems.</u> Paper for AIAA Conference.
- Hair, D. C. (1993). <u>Design of a Real Time Interface for Decision Support.</u> Naval Command, Control and Ocean Surveillance Center, RDT&E Division.
- Hair, D. C., Pickslay, K. (1993). <u>New Approaches for Real-Time Decision Support Systems.</u> Paper for Technology 2003 (NASA) Conference.
- Hutchins, S. G., & Duffy, L. T. (1992). Decision-Making Evaluation Facility for Tactical Teams. <u>Proceedings of the 9th Annual Conference on Command and Control Decision Aids</u>. Monterey, CA.
- Hutchins, S. G., & Kowalski, J. T. (1993). Tactical Decision Making Under Stress: Preliminary Results and Lessons Learned. <u>Proceedings of the 10th Annual Conference on Command and Control Decision Aids</u>. Washington, DC.
- Hutchins, S. G. (1994). <u>Evaluation of a Decision Support System for Aiding Tactical Decision Making Under Stress</u>. Presentation to the 1994 Symposium on Command and Control Research and Decision Aids, Monterey, CA.
- Hutchins, S. G. (1995). <u>Root Causes of Errors in Decision Making</u>. Presentation to the Annual TapRoot Incident/Accident Investigator's Conference, June 1995. Orlando, FL.
- Hutchins, S. G. (1995). <u>A Decision Support System for Tactical Decision Making Under</u> Stress. Presentation to the Joint C4I Seminar at the Naval Postgraduate School.
- Hutchins, S. G. (1995). <u>Principles for Intelligent Decision Making</u>. Paper presented to Symposium on Human Interaction with Complex Systems.
- Hutchins, S. G. (1996). Principles for Intelligent Decision Making. Chapter to be published in Human Interaction with Complex Systems, Kluwer Academic Publishing.
- Hutchins, S. G. (1995). <u>Decision Making Errors Demonstrated by Experienced Naval Officers in a Littoral Environment</u>. Presented to the Second International Conference on Naturalistic Decision Making, Dayton, OH.

- Hutchins, S. G. (1996). Decision Making Errors Demonstrated by Experienced Naval Officers in a Littoral Environment. Chapter to be published in <u>Advances in Naturalistic Decision Making: Research and Applications</u>, Zsambak, C. E. & Klein, G. A. (Eds.) Hillsdale, NJ: Erlbaum.
- Hutchins, S. G. (1996). <u>Decision-Making Evaluation Facility for Tactical Teams</u>. Naval Command, Control and Ocean Surveillance Center, RDT&E Division Technical Report, San Diego, CA.
- Hutchins, S. G., & Rummel, B. K. (1995). A Decision Support System for Tactical Decision Making Under Stress. <u>Proceedings of the First International Conference on Command and Control Research and Technology</u>. June 1995, Washington, D. C.
- Hutchins, S. G., & Westra, D. P. (1995). Patterns of Errors Shown by Experienced Navy Combat Information Center Teams. <u>Proceedings of the 39th Annual Meeting of the Human Factors and Ergonomics Society</u>, October 1995, San Diego, CA.
- Hutchins, S. G. (1996). <u>Principles for Intelligent Decision Aiding.</u> Naval Command, Control, and Ocean Surveillance Center, RDT&E Division, Technical Report 1718, San Diego, CA.
- Hutchins, S. G. & Hutchins, R. G. (1996). Decision Support for Enhancing Tactical Air Situation Awareness. In <u>Proceedings of the First Annual Symposium on Situational Awareness in the Tactical Air Environment</u>. Patuxent River, MD, June 4-5 1996.
- Hutchins, S. G., Morrison, J. G. & Kelly, R. T. (1996). Development of a Decision Support System Based on Analysis of Operational Decisions. Presentation to the Military Operations Research Society, Ft. Leavenworth, KS, June 18-20 1996.
- Hutchins, S. G., Morrison, J. G. & Kelly, R. T. (1996). Principles for Aiding Complex Military Decision Making. In <u>Proceedings of the Second International Symposium on Command and Control Research and Technology.</u> Monterey, CA, June 25-28, 1996.
- Hutchins, S. G., Morrison, J. G. & Kelly, R. T. (1996). Decision Support for Tactical Decision Making Under Stress. In <u>Proceedings of the Second International Symposium on Command and Control Research and Technology</u>. Monterey, CA, June 25-28, 1996.
- Hutchins, S. G. (1996). Lessons Learned on Improving Decision Making Under High Stress. Presentation to the TapRoot Incident/Accident Investigation Conference, Nashville, TN, July 24-26, 1996.
- Hutchins, S. G. & Westra, D. P. (1996). <u>Tactical Decision Making Under Stress: Baseline Results</u>. Naval Command, Control, and Ocean Surveillance Center, RDT&E Division, Technical Report, San Diego, CA.

- Hutchins, S. G., & Sovereign, M. G. (in preparation). Decision Support for the Command-Level Naval Tactician. <u>Naval War College Review</u>, in preparation.
- Hutchins, S. G. (1997). Decision-making errors demonstrated by experienced naval officers in a littoral environment. In C. E. Zsambok & G. Klein (Eds.), Naturalistic decision making (pp. 207-215). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kaempf, G. L., Wolf, S., Thordsen, J. L., & Klein, G. (1992). <u>Decision Making in the Aegis Combat Information Center</u>. Fairborn, OH: Klein Associates Inc. Technical Report for the Naval Command, Control and Ocean Surveillance Center, San Diego, CA.
- Kaempf, G. L., Wolf, S., & Miller, T. E. (1993). Decision Making Requirements in the Aegis Combat Information Center. <u>Proceedings of the Human Factors and Ergonomics Society 37th Annual Meeting</u>. Santa Monica, CA: Human Factors and Ergonomics Society.
- Kaempf, G. L., Wolf, S., & Miller, T. E. (1993). Decision Requirements for the Design of Human-Computer Interfaces. <u>Proceedings of the 10th Annual Conference on Command and Control Decision Aids</u>. Washington, DC.
- Kelly, R. T., Hutchins, S. G. & Morrison, J. G. (1996). Decision Processes and Team Communications with a Decision Support System. In <u>Proceedings of the Second International Symposium on Command and Control Research and Technology</u>. Monterey, CA, June 25-28, 1996.
- Kelly, R. T., Morrison, J. G., & Hutchins, S. G. (1996). Impact of Naturalistic Decision Support on Tactical Situation Awareness. <u>Proceedings of the 40th Human Factors and Ergonomics Society Annual Meeting</u>, Philadelphia, PA, September 22-26, 1996.
- Klein, G. A., & Zsambok, C. (1991). Models of Skilled Decision Making. <u>Proceedings of</u> the 35th Annual Human Factors and Ergonomics Society Meeting, San Francisco, CA.
- Klein, G. A., (1993). Sources of Errors in Naturalistic Decision Making Tasks. Proceedings of the 37th Annual Human Factors and Ergonomics Society Meeting.
- Klein, G. A. (1992). <u>Decisionmaking in Complex Military Environments</u>. Fairborn, OH: Klein Associates Inc. Technical Report for the Naval Command, Control and Ocean Surveillance Center, San Diego, CA.
- Klein, G. A. (1992). <u>Summary of Data Collection and Results for TADMUS</u>. Technical Report. Klein Associates, Dayton, OH.

- Kowalski, J. T., & Hutchins, S. G., (1994). Errors Demonstrated by Navy Combat Information Center Teams. Submitted to German Military Psychology Journal.
- Kramer, T. (1991). <u>Aegis Lessons Learned</u>. Presentation to TADMUS Technical Advisory Board. Naval Command, Control and Ocean Surveillance Center, RDT&E Division, November 1991, San Diego, CA.
- Miller, T. E., Wolf, S. P., Thordsen, M. L., & Klein, G. (1992). <u>A Decision-Centered Approach to Storyboarding Anti-Air Warfare Interfaces</u>. Fairborn, OH: Klein Associates Inc. Technical Report for the Naval Command, Control and Ocean Surveillance Center, San Diego, CA.
- Morrison, J.G., Kelly, R. T., Moore, R.A. and Hutchins, S. G. (1997). Tactical Decision Making Under Stress (TADMUS) Decision Support System. 1997 IRIS National Symposium on Sensor and Data Fusion, MIT Lincoln Laboratory, Lexington, MA, 14-17 April 1997.
- Morrison, J. G., Marshall, S.P., Kelly, R. T., Moore, R.A. (1997) Eye Tracking in Tactical Decision Making Environments: Implications for Decision Support Evaluation. In <u>Proceedings of the Third International Symposium on Command and Control Research and Technology</u>. National Defense University, June 17-20, 1997.
- Morrison, J.G., Kelly, R. T., Moore, R.A. and Hutchins, S. G. (1997). Implications of Decision-Making Research for Decision Support and Displays. In Cannon-Bowers, J. A. and Salas, E. (Eds) <u>Decision Making Under Stress: Implications for Training and Simulation</u>, In press.
- Noble, D. A. (1990). <u>Cognitive Model to Guide Interface Design</u>. Technical Document 1831, Naval Ocean Systems Center, San Diego, CA.
- Noble, D., & Haupt, C. (1991). <u>Recognition-Primed Decision Support for Ship Combat Defense</u>. Presentation to the 8th Annual Conference on Command and Control Decision Aids. Washington, DC.
- Noble, D., & Flynn, W. (1993). The TADMUS "RPD" Tool: Decision Support for Threat Assessment and Response Selection. <u>Proceedings of the 10th Annual Conference on Command and Control Decision Aids.</u> Washington, DC.
- Noble, D. (1993a). A model to support development of situation assessment aids. In G. A. Klein, J. Orasanu, R. Calderwood and C. E. Zsambok (Eds.), <u>Decision Making in Action: Models and methods</u>. Norwood, NJ: Ablex Publishing Corporation.
- Noble, D. (1993b). <u>RPD Tool Concept Document</u>. Vienna, VA: Engineering Research Associates.

ORINCON Corporation, (1991). TADMUS I Final Report. (OCR 92-U-440). San Diego, CA.

ORINCON Corporation. (1992). TADMUS II Final Report (OCR 92-U-440). San Diego, CA.

ORINCON Corporation. (January 1993). <u>TADMUS III: AAW Short Course for Research Personnel</u>. San Diego, CA.

Perrin, B. M., Barnett, B. J., & Walrath, L. D. (1993). Decision Making Bias in Complex Task Environments. In <u>Proceedings of the Human Factors and Ergonomics Society 37th Annual Meeting</u> (pp. 1107-1111). Santa Monica, CA: Human Factors and Ergonomics Society.

Riffenburgh, R. H. (1990). <u>On Naval Actions and Reactions in Limited Warfare</u>. Technical Document 1814, Naval Ocean Systems Center, San Diego, CA.

Riffenburgh, R. H. (1991). <u>Tactical Decision Making Under Stress Program Study:</u> <u>Initial Design</u>. Technical Document 2217, Naval Ocean Systems Center, San Diego, CA.

Riffenburgh, R. H. (1991). <u>A Comprehensive Model of Decision Making</u>. Technical Document, Naval Ocean Systems Center, San Diego, CA.

Rummel, B. K. (1995) <u>Subjective Evaluation Study of Human-Computer Interface</u> <u>Options for a Tactical Decision Support System</u>. Naval Command, Control and Ocean Surveillance Center, RDT&E Division Technical Report, 1698, San Diego, CA.

Smith, D. E., & Grossman J.D. (1993). <u>Understanding and Aiding Decision Making in Time-Constrained and Ambiguous Situations</u>. Naval Command, Control and Ocean Surveillance Center, RDT&E Division.

Smith, D. E., & Marshall, S. P. (1993). <u>Neutral Network Models of Decision-Making Schemas</u>. Naval Personnel Research and Development Center, San Diego, CA.

Smith, D. E., & Marshall, S. (1995). Applying Hybrid Models of Cognition in Decision Aids. In G. A. Klein, & C. E. Zsambok (Eds.) <u>Advances in Naturalistic Decision Making:</u> Research and Applications, Hillsdale, NJ: Erlbaum.

Smith, D. E. & Marshall, S. (1997). Applying hybrid models of cognition in decision aids. In C. E. Zsambok & G. Klein (Eds.), Naturalistic decision making (pp. 331-341). Mahwah, NJ: Lawrence Erlbaum Associates.

Sonalysts Report. (1994) <u>Decision-Making Evaluation Facility for Tactical Teams</u> (DEFTT) Laboratory Description. [Brochure]. San Diego, CA.

Sonalysts Report. (1995) <u>Decision-Making Evaluation Facility for Tactical Teams</u> (DEFTT) Scenario Documentation. [Brochure]. San Diego, CA.

Sonalysts Report. (1995) <u>Decision-Making Evaluation Facility for Tactical Teams</u> (DEFTT) Briefing Materials. [Brochure]. San Diego, CA.

Sonalysts Report. (1996) <u>Decision-Making Evaluation Facility for Tactical Teams</u> (<u>DEFTT</u>)/<u>Decision Support System (DSS) Development Effort Summary</u>. San Diego, CA.

Sonalysts Report. (1996) Decision Support System Evaluation. San Diego, CA.

Westra, D. P. (1994). <u>Analysis of TADMUS Pre-Experimental Data: Considerations for Experimental Design</u>. Orlando, FL: Technical Report, Enzian Technology, Inc.

Westra, D. P. (1994). <u>Experimental Design Considerations for TADMUS</u>. Technical Report No. 92. Orlando, FL: Enzian Technology, Inc.

Westra, D. P. (1995). <u>Decision Support System for TADMUS: An Evaluation Plan.</u> Orlando, FL: Technical Report, Enzian Technology, Inc., October 1995.

Westra, D. P., & Hutchins, S. G. (1995). An Experimental Plan for Evaluation of a Decision Support System. <u>Proceedings of 39th Annual Meeting of the Human Factors</u> and Ergonomics Society, October 1995, San Diego, CA.

Zachary, W. W., Zaklad, A. L., Hicinbothom, J. H., Ryder, J. M., Purcell, J. A., & Wherry, R. J. (1991). <u>COGNET Representation of Tactical Decision-Making in Anti-Air Warfare</u>. Springhouse, PA: CHI Systems Technical Report 911015.9009.

Zachary, W. W., Zaklad, A. L. (1992). <u>Stress Effects on Tactical Decision Performance in</u> Ship-Based Anti-Air Warfare. Springhouse, PA: CHI Systems, Report 920630-9009.

Zachary, W. W., Zaklad, A. L., Hicinbothom, J. H., Ryder, J. M., & Purcell, J. A. (1993). COGNET Representation of Tactical Decision-Making in Anti-Air Warfare. Proceedings of the Human Factors and Ergonomics Society 37th Annual Meeting. (pp. 1112-1116). Santa Monica, CA: Human Factors and Ergonomics Society.

Zaklad, A. L., & Zachary, W. W. (1992). <u>Decision Support Design Principles for Tactical Decision-Making in Ship-Based Anti-Air Warfare</u>. Springhouse, PA: CHI Systems, Technical Report 920930-9009.

Zsambok, C., Beach, L. R., & Klein, G. (1992). <u>A Literature Review of Analytical and Naturalistic Decisionmaking</u>. Fairborn, OH: Klein Associates Inc. Technical Report for the Naval Command, Control and Ocean Surveillance Center, San Diego, CA.